

## Features

## Unregulated Converters

- Dual Output from a Single Input Rail
- 1kVDC & 2kVDC Isolation
- Power Sharing on Output
- Custom Solutions Available
- UL94V-0 Package Material
- Efficiency to 86%

**ECONOLINE**

DC/DC-Converter

# RD & RC Series

### Selection Guide

Part Number		Input Voltage	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	
SIP 7	DIP 14	2kV	(VDC)	(mA)	(%)	
RD-xx3.3D	RC-xx3.3D	(H)	5, 9, 12, 15, 24	±3.3	±303	70
RD-xx05D	RC-xx05D	(H)	5, 9, 12, 15, 24	±5	±200	70-82
RD-xx09D	RC-xx09D	(H)	5, 9, 12, 15, 24	±9	±111	80-84
RD-xx12D	RC-xx12D	(H)	5, 9, 12, 15, 24	±12	±84	80-84
RD-xx15D	RC-xx15D	(H)	5, 9, 12, 15, 24	±15	±66	82-86
RD-xx24D	RC-xx24D	(H)	5, 9, 12, 15, 24	±24	±42	82-86

xx = Input Voltage

## 2 Watt SIP7 & DIP14 Dual Output

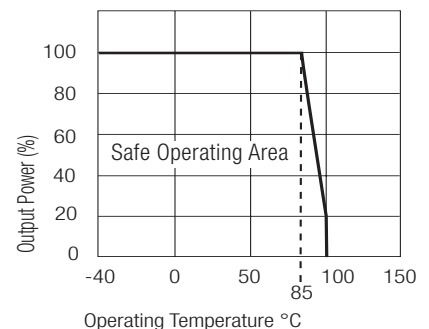


### Specifications (Core Operating Area)

Input Voltage Range			±10%
Output Voltage Accuracy			±5%
Line Voltage Regulation			1.2%/1% of Vin max.
Load Voltage Regulation (10% to 100% full load)	3.3V output types		20% max.
	5V output type		15% max.
	9V, 12V, 15V, 24V output types		10% max.
Output Ripple and Noise (20MHz limited)			150mVp-p max.
Operating Frequency			34kHz min. / 50kHz typ. / 85kHz max.
Efficiency at Full Load			70% min. / 80% typ.
No Load Power Consumption			163mW min. / 223mW typ. / 350mW max.
Isolation Voltage (tested for 1 second)			1.000VDC min.
Rated Working Voltage (long term isolation)			see Application Notes.
Isolation Voltage (tested for 1 second)	H-Suffix		2.000VDC min.
Rated Working Voltage (long term isolation)	H-Suffix		see Application Notes
Isolation Capacitance			40pF min. / 115pF max.
Isolation Resistance			10 GΩ min.
Short Circuit Protection			1 Second
Operating Temperature Range (free air convection)			-40°C to +85°C (see Graph)
Storage Temperature Range			-55°C to +125°C
Relative Humidity	MSL Level 1		95% RH
Package Weight			2.8g
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	988 x 10 <sup>3</sup> hours
(+85°C)		using MIL-HDBK 217F	135 x 10 <sup>3</sup> hours

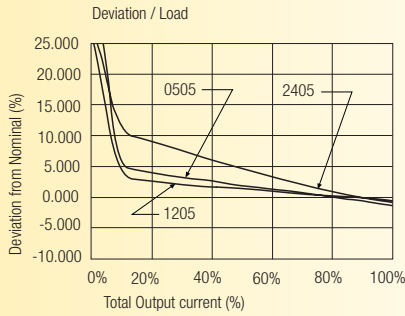
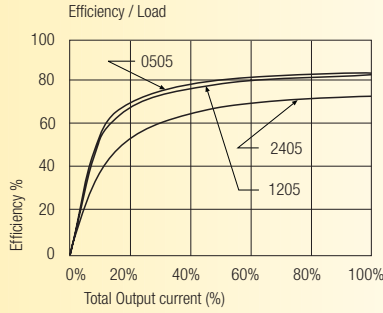
**RECOM**

## Derating-Graph (Ambient Temperature)

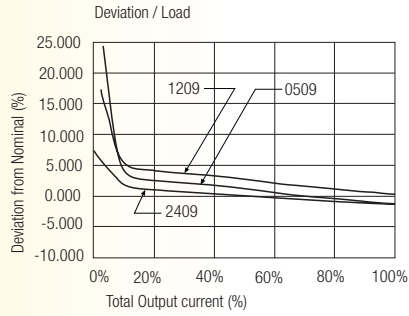
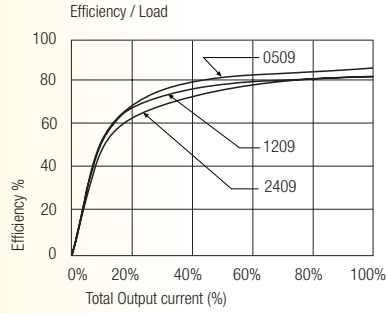


**Typical Characteristics**

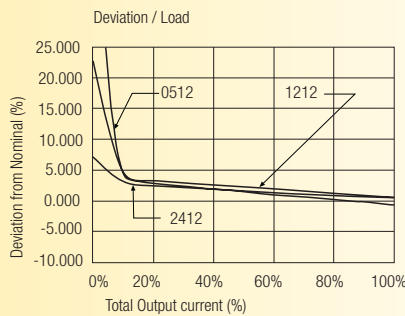
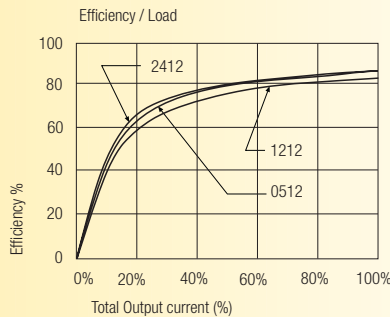
**RD&RC-xx05D**



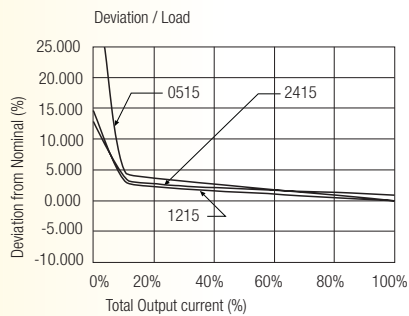
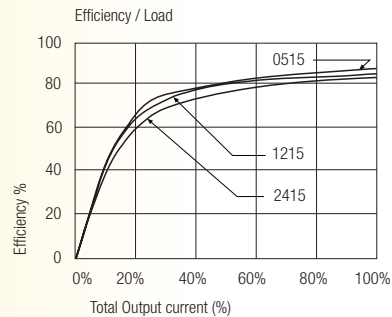
**RD&RC-xx09D**



**RD&RC-xx12D**

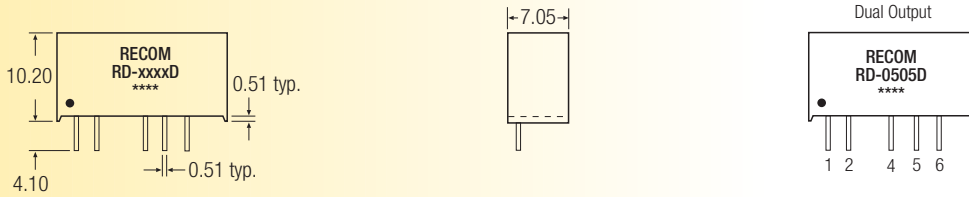


**RD&RC-xx15D**

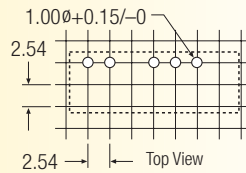
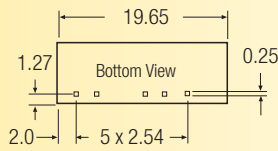


**Package Style and Pinning (mm)**

**7 PIN SIP Package**



**Recommended Footprint Details**

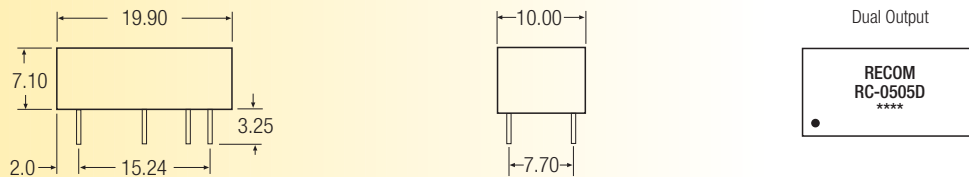


**RX Pin Connections**

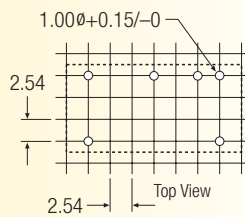
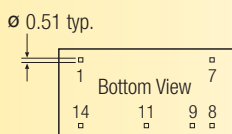
Pin #	Dual
1	+Vin
2	-Vin
4	-Vout
5	Com
6	+Vout

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

**14 PIN DIP Package**



**Recommended Footprint Details**



**Pin Connections**

Pin #	RC
1	-Vin
7	NC
8	Com
9	+Vout
11	-Vout
14	+Vin

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm